



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,449	02/25/2004	David J. Haas	180825.00012	4908
26710	7590	04/07/2006	EXAMINER	
QUARLES & BRADY LLP 411 E. WISCONSIN AVENUE SUITE 2040 MILWAUKEE, WI 53202-4497				GOODWIN, JEANNE M
ART UNIT		PAPER NUMBER		
				2841

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

48

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/786,449	HAAS ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Jeanne-Marguerite Goodwin	2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 2/25/04.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 18-23 is/are allowed.  
 6) Claim(s) 1-8, 16 and 17 is/are rejected.  
 7) Claim(s) 9-15 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 25 February 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/25/04</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

**DETAILED ACTION*****Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 3, 7, 8, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 5,822,280 to Haas [hereinafter Haas].

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

**Regarding claim 1:** Haas discloses a time indicator comprising a front part 12, 112 comprising an opaque layer 31, 131 and a colorant layer (col. 9, lines 15-18) in contact with the opaque layer at an interface 36, 136, the colorant layer comprising a matrix and a colorant in the matrix (Fig. 1), the colorant having a non-migratory form in which the colorant does not migrate in the matrix to the interface and a migratory form in which the colorant migrates in the matrix to the interface; and a back part 14, 114 comprising a reactant (col. 9, lines 11- 13) capable of migrating in the colorant layer, wherein, when the front part and the back part are placed in contact, the reactant migrates into the colorant layer and reacts with the non-migratory form of the colorant converting the non-migratory form of the colorant to the migratory form of the colorant such that the migratory form of the colorant migrates to the interface and through the opaque layer to cause a visual color indication in the front part (col. 9, lines 11-66, col. 10, lines 1-12).

**Regarding claim 3:** Haas further discloses the matrix comprising a pressure sensitive adhesive (col. 9, line 46).

**Regarding claim 7:** Haas further discloses the front part comprising a transparent layer 16, 116 in contact with the opaque layer at a surface of the opaque layer opposite the interface (Fig. 1).

**Regarding claim 8:** Haas further discloses the transparent layer comprising a transparent substrate and a transparent adhesive providing adhesion between the transparent substrate and the opaque layer (Fig. 1).

**Regarding claim 16:** Haas further discloses the back part comprising a base substrate in contact with the reactant (Fig. 1).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being obvious over Haas.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by:

(1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

**Regarding claim 2:** Haas discloses a device as stated above with regards to claim 1. Haas discloses all the subject matter claimed by applicant with the exception of the limitation stated in claim 2, i.e., the particular type of colorant being an ionomer dye.

The limitation in this claim, absent any criticality, is only considered to be the use of “optimum” or “preferred” material that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide for the dye used by Haas to form the colorant as claimed by applicant since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. See *In re Leshin*, 125 USPQ 416. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace dye of Haas, with the dye, as taught by applicant, to better control the migration of the dye because of the low molecular weight.

5. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being obvious over Haas in view of US Patent 5,633,836 to Langer et al. [hereinafter Langer].

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is

the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

**Regarding claim 4:** Haas discloses a device as stated above with regards to claim 1. Haas discloses all the subject matter claimed by applicant with the exception of the limitation stated in claim 4, i.e., the time indicator of claim 1 wherein, the non-migratory form of the colorant includes an acid group, the reactant has a basic pH, and an acid-base reaction between the non-migratory form of the colorant and the reactant converts the non-migratory form of the colorant to the migratory form of the colorant. Langer teaches using a pH-indicating dye to provide the colorant, wherein the non-migratory form of the colorant includes an acid group, the reactant has a basic pH, and the acid-base reaction between the non-migratory form of the colorant and the reactant converts the non-migratory form of the colorant to the migratory form of the colorant (col. 3, lines 44-55). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace the colorant (dye), as taught by Haas, with the acid-base colorant, as taught by Langer, since both are alternative types of colorants which will provide the same function, if one is replaced with the other, of indicating an image, respectively.

**Regarding claim 5:** Haas discloses a device as stated above with regards to claims 1 and 4. Haas discloses all the subject matter claimed by applicant with the exception of the limitation stated in claim 5, i.e., the particular type of acid group being a sulfite group. The limitation in this claim, absent any criticality, is only considered to be

the use of “optimum” or “preferred” material that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide for the acid used by the combination of Haas and Langer to form the colorant as claimed by applicant since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. See *In re Leshin*, 125 USPQ 416. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace acid of Haas and Langer, with the acid, as taught by applicant, to prevent oxidation.

**Regarding claim 6:** Haas discloses a device as stated above with regards to claims 1 and 4. Haas discloses all the subject matter claimed by applicant with the exception of the limitation stated in claim 6, i.e., the particular type of reactant being an amine. The limitation in this claim, absent any criticality, is only considered to be the use of “optimum” or “preferred” material that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide for the reactant used by the combination of Haas and Langer to convert the colorant as claimed by applicant since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. See *In re Leshin*, 125 USPQ 416. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace reactant of Haas and Langer, with the reactant, as taught by applicant, in order to form a non-toxic colorant.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being obvious over Haas in view of US Patent 6,452,873 to Holt et al. [hereinafter Holt].

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by:

(1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention “by another”; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

**Regarding claim 17:** Haas discloses a device as stated above with regards to claim 1. Haas discloses all the subject matter claimed by applicant with the exception of the limitation stated in claim 17, i.e., the opaque layer having an acidic pH, and the colorant that migrates into the opaque layer undergoes a color change due to acidic pH. Holt discloses the opaque layer having an acidic pH, and the colorant that migrates into the opaque layer undergoes a color change due to acidic pH (col. 7, lines 16-50).

*Inventorship*

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

*Allowable Subject Matter*

8. Claims 9-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 18-23 allowed.

*Conclusion*

10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Examiner Jeanne-Marguerite Goodwin whose telephone number is (571) 272-2104. The examiner can normally be reached on Monday-Friday (9am-6pm), alternate Fridays off. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature

Art Unit: 2841

or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2861.

JMG  
March 29, 2006

KAMMECUNEO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

KAMMECUNEO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800